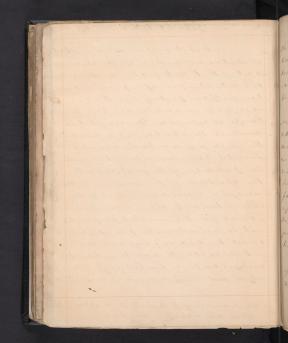
Inaugural Gay on the phenomena of Suspended animations Philadelphia

Introduction

The hidlory of our subject is short no excelient was made, until the commence ment of the 18 cca ling, when in Action a this interesting cale upon policy as well humanile was propuly regarded and succepfully canced into execution; in Carope as well as in amuca, it has an a kente the attention and intenested the feelings of mankind, numerous to ciclied have been established under the patronago of the great and with the apistance of the learned: wen the Savaged of algend have littered to the calls of humanity, and a society had been formed for this benevolent purposels: but to England are we principly in debte whilst her army and now were distingdes and destruction to more than half the civilized world, a kumbler chaps of her city and were busily engaged, in unestigation

The protect day of England is the prison of the second on down of London.



The meand of ustoning suspended an emalion; how delightful the contrast , with what heartfelt Satisfaction, must the dumane dociety of London have viewed 1300% persons, rescued from the Many of livered. A If we are Struck with admi. . ration at the productions of guind, in which the white captivated us & and unitation of hatere, and teacher canvas a marble to propertin ble animation. with what rapture must inlarge and benewdent mends view the corporal faculties actually restored, the church again blooming with under wither all. . Ire, and the countinance repleto with gratitude to those who have been the happy instruments of reduscitation! Upon the imparealisand of mis efray, I have but one observation to make, the time allowed for its pie-

"So appendit to 4 to Dr. Time his Sumon

duction was pefer in sectings and in my subject paturally divided it self, into the producate cause of death, and the means of restoring unimation when Suspended; the signed by which we determine the actual death of the animal, are So un certain we shall not attempt to unvestigate them.

The prosen die cause of deals 4 a variety of opinions have been a dranced, as to the Seat of that pinciple, or quality we cale life; whether it resided in the blood, brain, neved on Stomach, a is the result of or ganization, or the effect of Stimuli, is to me unknown; that ale animals and regetables which live are organized and require stimuli to Support this life, home wile deny, but we wile not intangle our Selped in this etan al sub net of dispute, neitherdo we consider it nechan; to understand what this quality a principle is to investigates the laws which governlife; the carlled which interrupt or distroy it israle that is required for the successful practice of medicine. by study ing The principles of gravity, new too unfolded the land which foren the peanetan

by Stew, and until we more fully wired. ty ate the phenomena of life and deathy to wile, at no con clusions of practices Max was formed by his Greater to live in the almosphere which surounds him, deprived of that he languished and died : to ascartain the phenomena of reaspends Airation I mistituted the following ex. parements. 80 Having procured a cal I paper a ligature round its tracked? upon opening the cavits of the thin ast, the right side of the heart with the superior and infer in card war destended with dark elaco blood, left side mearly emply; the lungs of a dark color; the heart continued to pulsate for 2 hours and was excetable for upwards of 5 hours; The blood ripels of the brain were loaded

with a dark colored blood, but no ex travidation was observed, similar appear ances were observed after drown ing, and it is only nicessay to remark that we water was found in the lungs; we shale defer our con clusions for the present proceed to examine the various opin wond up on the producte ale cause of death, from hanging drown ing to They have been an anged & Nite in his prize estay in to 1st, That species of apoplesey which are ded from an over distension of stome to. , 2dy, The blood being undered unfit for parforming its offices, to want of the action of the air in respiration. 3 dly, Water in the lungs: and I they, a contraction of the parts about the larged, preventing the air from pafsing into or out of the lungs, and producing

w. The enclosed air being ren dued highly phlogesticated. b. Suffication, or a congestion of blood about the heart and lungs; or, c apopledy. of the fist of these opinions it is only necessary to observe that Do Afach found no distention of the stomach in 18 dogs which he examined and Kilis experiments upon Rittend coincided with those of De Starn for not ma drop of water was found in any of then stomachd." The opinion that death is produced by waters in the lungs is also proved to be a conect of experiments of others as will as my self, for when an imals are drown ed in a coloured fluid nous can bo dis. covered in the lungs after death; We shall not paude to examine the other Aido C. Kitis Chan in augura a deputation

of mind they are incliment to the popular doctrines of the day.

The most plantible opinion is have seen is that death is to be attributed to apopleday, to test the truth of it the following isk per in en to were purpora to to a graduate, in this Unwardily; "The two caroteds of a half frown dog were land bare and fumly secured by legatures; the col tunal wound being now stitched up, the an im al was set at liberty, 5 hours no change having been produced on kind by the operation having the perfect use of ale his sended and as lively as ho was before the operation was performed) ho was plunged un der not allowing him to respire the least por? tion of air. his struggles and efforts to Inspire were very strong, and continued for two menutes after which he became fullo,

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and was taken out dead to 3 minutes and & secon ds: On diffection, the external surface of the brain appeared some what dark; very little blood was found in its refrels, which were but little more than halffull of blood: The other experiment is as follows, having secured the ester nal and internal juguelar reind of a half frown dog, he was det at liberty: in one hour and thirty minuted, the animal appeared drowsry, but respiration natural, with some increased fulness of pulso: in Three hours, he appeared to desire sleep, and the blood refsels of the coals of the yes were somewhat turged. Sleft him by ing on some straw at five in the afternoon, The legatures were put on at 10 in the morning apparently better; at less the next morning much better, and his apopleatio symp toms not so evident as they were the day

before. at twelve on the Same day he was plunged under water, par anytains and confined below its surface during The whole lime, not pumiting him to have acceps to the external air. He struggled sweely for two minutes, making frequent efforts to inspire. He now became very fuble, but stile attempting to inspire. to died in 3 minutes. On differ ting him the blood refsels of the brain was very lunged, with extremely black blood; no edetravadation occurred, but offusion has taken place in the rentricles: the lateral sinused were traced to their tum ination in the juguland, consider ally distanded, and the juguland, above whend the ligations had been applied, were also much dis. ten de de.

It appears from these experiments that notinitistanding the current of blood

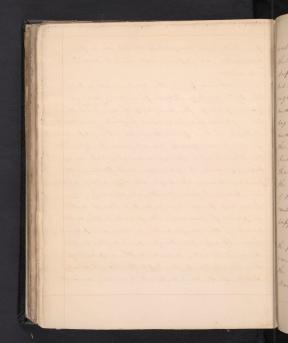
a odt Jegle with rond da, lungo was interested tother and, the animals died in the usual time; and when it was presented from returning by its usual point or rather when it was all most entirely so, death was not accelarated.

The experiment of Grofeston Mouro is equally conclusives.

"a dog was suspended of the make with a cond; an opening having been prewish of made in the windspipe below the cond, is as to admit and into the lungs.

In this state, he was always which time, the circulation and beathing which time, without being much in the superior without being much in templication the compensation and beach him great to be to be to be to be the compensation as to intercept the ingress of air into the langs, and the animal being again sis.

pended, was completely dead in a few purites" no experiment could more en decisivo. So early as the commencement of the 17th century Boyle proved by meand frair pump the marginity of air, and that the actions of life ceased without constant supply of this polulum vito: The esperiment of Skooke is equally conclusive; he opened the thorax of a living animal, cut away his ribs and diaphragm, and took off the fue cardium. She kept the dog alio above an hour, before the Royal Society, by blowing fresh air into his lungs with a pair of believed. She pricked the outer coat of the lungs with a stender point of a Strap penterife, and with a con. tinued blast, made with a pair of double bellows, he kept the lungs always distended, and without motion; and it



man is born (says the poet) but to die, and reasons, but to ever, the verily of the opinion is exemplefied in this subject, & the experiments of Boyle of Rooke and of may ow and by the concurrent testimony of mankind, the air, as well as the plants and animals, which sur round us, are necessary for our existences. This granted, and who wile down it? we reed carry our thoughts, but one step further to anive at truth, let us new for a moment, the apparatus of cir. culation, the right ventricle of the heart received the blood of the venous of tem, and distributes it, through the lungs, here it comes in contact with The air of our atmosphere, and passes from a dark or venous color, to a bright no or activial one, which is returned to the left ventricle by the pulmonary

was observed, that while the lungs were thus Rept distanded with a constant supply of fresh air, the day lay stile. his eyes were quick, and his breast beat regularly; but with leaving off blowing, and suffering the lungs to lie stile, the dog presently fele ento dying convulsions, and as soon recovered again on renewing the blast, and supplying the lungs with fresh air? from all which he concluded that neither the motion of the lungs nor The ceftation of them, now the stoppage of the circulation through them was the cause of death, but a want of a regular supply of air.

With these aparements before their, the physiologists of the present day have wendered in darkness and doubt, until the corresponding of the general of Brokat claim ined healt and intra ale subject;

bile

seems to the left ventricle; from which t is distributed by the anta, to ale parts of the ody communicating health and strength: but reverde the state of the animal, placed under water, his tracked secured by a ligature, destroy his spenal manow, or prevent the mechanical or chemical actions of the lungs in any way; and instead of the bright artical blood returned & the pulmonary veins, to diffuse life and strength, you will have a dark coloured fluid (the wen ous blood) which wile carry death to every part of the System.

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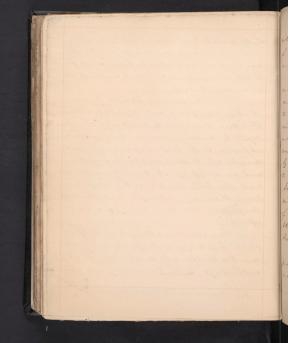
Having attempted to laplain the practimates cause, we proceed to the second durision of our Subject, the means of restoring suspended respiration or animatino. To adapt our reme dial re. sourced to the suc varying state of the 13 time, in ordinary diseases; is the law guage of american physicians: a class of non who have received the sceptre of neadow from the hand of touth, who have infused the republican Spirit of our goverment into medicine sunshack led by the trammels of mosilogy, they presente for the vamoud forms of maked excitment; sew parts of our profession prequired this amaican practice mad the a our present subject: we can not closedate our maning upon the new file of a dopting our remo dies to feeble grades of life than by relating

to re

the following case. Whiting un englishman aged about 25 years was admitted into the Finnsylvania Pospetal, during last winter, he Stated that during a very cold night, he walked to his fathers who lived on the other side of the Schuglkilo - on his way out he got his feet wet on his anival his shoed and Stockings were removed and hid feet placed in warm water; after remaining in the water for 10 a 15 minutes he removed them and found both feet and legh as the calviscound with black blisters: in this state he was admitted a blisten was presented to the affected part by DD Dady the attending Surgeon, es. tendino stoughts deparated, which to mulilated his feet, as to render and pulation receptacy; had heat in this. case been gradually applied the prot.

get his feet had so had

is, he would have been slightly injured. the Shale proceed to relate the harloud means which have been found most succeptue in the hands of the Hum and Lociely The patient should be imme. diately stripped of wet cloathes, and warm covering substituted, he should be con teged to a warm room, or during summar exposed to the suns, I never could says meak) inflate the lungs to long as he was in a liplefs state; but no Sooner was the body heated with a warning pan, than weny attempt to distend the lungs was attended with amoning good effects." In all our attempts it is of the fust importance, to produce ixcite. ment in the skin, by heat, & by frictions with falt, with hautshaw and above all See Frantactions R. H. S. page 100



with decoction of canthacides in spirits of temperatine, which should be mibbed after having produced warmth on the surface, or whilst frections to are employed, we should unde avour to distend the lungs with common air, and for this purposels a flexible take adapted toabellows wile answer very well; it has been recommended by Hunter Philosophical Transactions) to entroduce the fumes of volatile alkali. Stimuli of such kinds as may be most convenient should by means of another tubes be passed into the Stomach and stemulating, Should be thrown into the rection. of the various of means which have presented to the mend of man, for the relief of the maladies to which

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to is subject; few have claimed his more second attention than the chieft, and I am Jeny to add, from which to had de will so be letter positive good.

It had been warnly recommended by the desting without I Fethingell and other membras of the steam are rociety, but we are heifalt to our patients, by the gradual and general sets of stemale.

the are directed to inverse our estations, on rather our remedits, up to the fast appearance of left, the control of left, the control of the standard by the decreased or distantine is a for the restantion of members light fort, next I had alice I have been tall of sure of a distinguished medical inter that patients in this state I hould be couply a distinguished medical inter that

watcher fortheatent occutillula wile often quickly disappears" The recoveries from drown ing are frequently followed by acute inflam. mation, which should be relieved by general, and local bleeding, punged and the wheat an ifflogistic treatment We shalis conclude by quoting the popular directions upon this subject by The Sumane Society. I The bedy should not be rolled on the ground, or over a band, nor lifted it by the heels or in any other way roughly have -dee, a violently shook; but be removed to a compartable place, bying as on a bed with the head a little raided, in as natural a position as posibles-11 The body well wifed with a clothy should be placed in a warm bed a blanket; but not too near a large fine Betters of hot

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vater should be land to the bottom of the feet, founts of the tree, and under the arm pill. a warming pan moderately healer, a hat bricks wraffed in cloths, should to sulled on the body, particularly along the back. The natural warmly of a healthy) puton, especially a child, Ging alose to the body, had been found my efficacions. The room should be kept of and any. with few persons in it, she shirt of an at Undent, on Sking a Sheet first killed and varm, may be used to advantage. Should The accident happen in the neighbourhood of a warm bath, boin house glass house salten, soap manufactory, a any fabric where warm leed, asked, untert, grains, sand to can be easily, it will be very people to place The body in any of these, moderated to a degree of heat litter coverding that of a healthy person.

III The body being placed in one or other of the above a dvantageous situations, saious Stimulating means should be imme diately employed. The most effical crows are, blowing with for a into the lungs, by applying the month to that of the patients, closing at the same time his nostrils; out bing the bely, chest, back, and arms with a coard cloth, or day salt, so as not to sub off the skin, a with a flanned depped in brandy, new, a gin; applying volatile salts on the like to the most toils, and nubbing them on the temples for quentle; teckling the throat with a feather, to est ate a propendity to vomit, and the nostrils oldo with a feather or snuff to provoke sneezing. The body should at interals be shaken, and varied in its posture. IV If there be any signs of life, such as sighing, sasping, twitching beating of the

I found,

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when if natural warmth and colon, a spen for of water may be administrate, to tay if the pewa of small owing to memore, if it he specially a tree of warm wine, or of brands, and water, may be given to a draw tage but act before. Carly bleeding had been found permissions.

Early bleeding had been found permerous, we tree fatal; it is not always applicable. Though it may similarly be employed of a person of shill, to remove a present symptoms of inflammation.

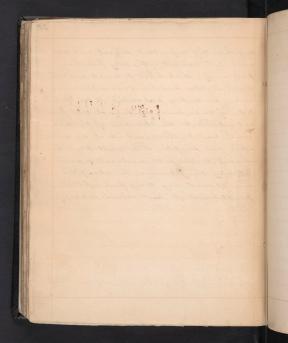
The above methods of nestoring applicables to warrows other ca

life are applicable to an ions other cashs of apparent sudden death, whether from kanging, apoplication of damps a moderned or pound, sufficienting from each mend, compare air of wells, carend, extend or from the must of furented leguers.

the have thus endeavoured to

1/4 Ini Surg of apparent to day down the Martin from

whold this impactant subject and we can but lament with way friend of humanily, that when so much west to know, so little had been accomplished, were a century had roled its beautiful title of time, since our subject was first with othered to the med who of the medical would not the means which are now still and to the past made have been storied to the fast medical and implied and thempto, and made have been storied to the fast medical and implied, and should some thing fail, let the pastitioner at least discuss Incress.



This Grayup go of present state of Medicine.

